

REMARKS

Claim 1 and withdrawn claim 16 are amended herein by incorporating the subject matter of claims 5 and 7 and claims 5 and 7 are canceled. No new matter is presented. Accordingly, upon entry of the Amendment, claims 1-4 and 6-19 will be all of the claims pending. Of these, claims 16-19 are withdrawn from consideration. Rejoinder of claims 16-19 is respectfully requested upon allowance of the composition claims.

I. The Rejections

Claims 1-4, 6 and 8-15 are rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as allegedly being obvious, in view of Diacel Denko, Co. (JP 2002-322303).

Claims 5 and 7 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Diacel in combination with Nakano et al (U.S. Patent No. 3,915,910).

II. Applicants' Response

Applicants respectfully submit that JP '303 does not disclose, teach or suggest all elements of the present claims and therefore cannot be said to anticipate the presently claimed invention. Further, JP '303 and Nakano et al do not teach or suggest all elements of the present invention, whether taken alone or in combination. Thus, the present invention is not rendered obvious by the cited references.

Specifically, the present invention relates to a composition for polyolefin resin foam, which comprises: a polymer component comprising a polyolefin resin, a rubber and/or a thermoplastic olefin elastomer, and powdery particles having a particle size of from 0.1 to 10

μm and in an amount of from 10 to 130 parts by weight, based on 100 parts by weight of the polymer component, wherein said composition has a melt tension of at least 20 cN when measured in a range between a first temperature at a melting point of said composition and a second temperature that is 20 degrees Celsius higher than said first temperature.

JP '303 does not disclose, teach or suggest the recited particle size range or the amount of the powdery particles and therefore does not anticipate the present claims for at least this reason. Nakano et al does not remedy the deficiencies of JP '303 and one of ordinary skill in the art would not have been motivated to combine the references with a reasonable expectation of success. Even if combined the present invention would not have been achieved.

The present invention is intended to solve the problems of the difficulty in obtaining a foamed body having a high expansion ratio using a polyolefin resin, obtaining a soft foam and for the same reason, the problems relating to the shape of the formed foam being limited to those with thin thickness.

In the present invention, by using a polyolefin resin composition which exhibits a melt tension not lower than a specified value, it has been found that a high expansion ratio is achieved due to the difficulty with which cell walls became less destructive during foam molding, and further that, by compounding powdery particles with a specified particle size in a specified amount, a foamed body with uniform structure can be obtained. In particular, the powdery particles have been restricted, not from the viewpoint of a flame retardant, but from the function as a nucleating agent at the time of foam-molding.

In JP '303, it is disclosed that a nucleating agent may be used for a resin for foamed molded products; however, the particle size is not specified and the amount is not within the

range specified in the present claims. With respect to the amount , JP '003 discloses 0.1 to 5 parts by weight of a nucleating agent is preferably used to the total 100 parts by weight of the composition resin foam. This compounded amount is different from that of the present invention.

Nakano et al relates to a flame retardant resin composition suited for building materials and the like which do not generate poisonous gas or black smoke when it is combusted. In Nakano et al, inorganic fillers (aluminum hydroxide, magnesium hydroxide, etc.) with an average particle size of from 0.01 to 50 μm are described. But, Nakano et al does not relate to a foamed body, and there is no description of the use of an inorganic filler as powdery particles that function as the nucleating agent at the time of foam-molding. Accordingly, one of ordinary skill in the would not have been motivated to combine JP '303 relating to foamed body with Nakano et al with a reasonable expectation of success. Even if combined, one of ordinary skill in the art would not have reached the particle size or compounded amount as set forth in Nakano et al because of the differences between the use as a nucleating agent and the use as a flame retardant.

In view of the above, the present invention as set forth in amended claim 1 and the claims dependent thereon is not anticipated, nor rendered obvious over the cited references. Accordingly, Applicants respectfully request withdrawal of the rejections.


III. Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the

Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,


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23373

CUSTOMER NUMBER

Date: August 9, 2006